

ing input screens 22 and 23 or the like displayable on the display screen 6 as shown in FIG. 11 and FIG. 12.

The input screen 22 is a screen referred to as a so-called software keyboard having a plurality of operating buttons 22a, 22a, . . . . Various processes such as a character inputting process and the like can be performed by tapping the buttons 22a, 22a, . . . with a finger or a special input pen.

The input screen 23 has a plurality of input frame areas 23a, 23a . . . . Characters and the like can be input by handwriting with a special input pen or the like in the input frame areas 23a, 23a, . . . .

By enabling the starting of the above-described input screens 22 and 23 when the keyboard 3 is in the closed state, as described above, functions necessary for operation can be secured for a user even when the keyboard 3 cannot be used, so that usability of the information processing apparatus 1 can be improved.

A fourth process example will be described (see FIG. 13).

When the opening and closing sensor 20 detects the opened state of the keyboard 3, a message indicating the opened state according to the detection result is issued to notify the keyboard controller 19 of the opened state (D1).

When the keyboard controller 19 receives the message from the opening and closing sensor 20, a request message to enable use of the keyboard 3 which message corresponds to the received message is issued from the keyboard controller 19, and the issued message is supplied to the USB host controller 15 (D2).

When the message is supplied to the USB host controller 15, the low power consumption mode of the keyboard 3 is cancelled, and the keyboard 3 is set in a usable state.

At the same time, when the keyboard controller 19 receives the message from the opening and closing sensor 20, a message corresponding to the received message is issued from the keyboard controller 19, and the issued message is supplied to the application 18 via the USB host controller 15, the USB driver 16, and the operating system 17 (D3).

On the basis of the message supplied to the application 18, the application 18 issues a message to enable starting of software and the like used as the keyboard 3 is used.

By enabling use of the keyboard 3 when the keyboard 3 is brought into the opened state as described above, excellent operability of the information processing apparatus 1 can be ensured.

Incidentally, the following process may be performed when the opened state of the keyboard 3 is detected.

For example, it is possible to perform a process of disabling operation or the like of functions that are also provided to the keyboard 3 among the functions provided to the apparatus main unit 2 when the keyboard 3 is opened. Specifically, there are a process of disabling operation of the left button 7b, the right button 7c, the enter button 7f, the cursor key 7g, the pointing device 7h, and the like, and a process of disabling starting of the input screens 22 and 23 or the like and limiting power to means for performing the functions of the input screens 22 and 23 or the like.

By thus disabling the operation or the like of the functions that are also provided to the keyboard 3 among the functions provided to the apparatus main unit 2 and limiting the power, unnecessary power consumption is prevented, and therefore power saving can be achieved. This is particularly effective when the information processing apparatus 1 is driven by a battery.

As another process, a process of setting a utility for making various settings on the keyboard 3 in an executable state can be performed.

By thus performing a process of setting a utility for making various settings on the keyboard 3 in an executable state, functions necessary only when the keyboard 3 is usable are secured, and therefore usability of the information processing apparatus 1 can be improved.

As described above, the information processing apparatus 1 detects the closed or opened state of the keyboard 3, and controls the operation of the apparatus main unit 2 or the keyboard 3 according to a result of the detection. Therefore, appropriate operation according to a state of use of the keyboard 3 can be performed, and usability of the information processing apparatus 1 can be improved.

The specific shapes and structures of the parts illustrated in the foregoing best mode each represent a mere example of embodiment in carrying out the present invention, and are not to be construed as restrictive of the technical scope of the present invention.

It should be understood by those skilled in the art that various modifications, combinations, sub-combinations and alterations may occur depending on design requirements and other factors insofar as they are within the scope of the appended claims or the equivalents thereof.

What is claimed is:

1. An information processing apparatus comprising:
  - a keyboard that has a plurality of operating keys and is foldable via a hinge part, said keyboard being set in a closed state in which the operating keys are closed and in an opened state in which the operating keys are opened; and
  - an apparatus main unit that is connected with the keyboard and performs a process corresponding to an operation of the operating keys on the keyboard, the apparatus main unit including a processor and a display screen;
    - wherein operation of one of the apparatus main unit and the keyboard is controlled according to the closed state and the opened state of the keyboard,
    - the processor enables starting of software for using the keyboard when said keyboard is set in an opened state, and
    - the processor enables starting of software that generates a keyboard graphical user interface on the display screen when the keyboard is in a closed state, said keyboard graphical user interface being a pictorial representation of the keyboard.
2. The information processing apparatus as claimed in claim 1,
  - wherein when the closed state of the keyboard is detected, supply of power to the keyboard is limited, and a low power consumption mode is set.
3. The information processing apparatus as claimed in claim 1,
  - wherein when the closed state of the keyboard is detected, one of operating means provided to the apparatus main unit, for performing various operations, and inputting means provided to the apparatus main unit, for inputting various information, is set in a usable state.
4. The information processing apparatus as claimed in claim 1,
  - wherein when the opened state of the keyboard is detected, the keyboard is set in a usable state.
5. The information processing apparatus as claimed in claim 1,
  - wherein when the opened state of the keyboard is detected, one of operating means provided to the apparatus main unit, for performing various operations, and inputting means provided to the apparatus main unit, for inputting various information, is set in an unusable state.